

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
WESTERN DIVISION**

REMBRANDT ENTERPRISES, INC.,

Plaintiff,

v.

TECNO POULTRY EQUIPMENT S.P.A.
f/k/a TECNO POULTRY EQUIPMENT
S.R.L.,

Defendant.

Case No. 5:21-cv-04007 - CJW

**PLAINTIFF REMBRANDT
ENTERPRISES, INC.'S *DAUBERT*
MOTION IN LIMINE AS TO BAKER
ENGINEERING AND RISK
CONSULTANTS, INC.**

ORAL ARGUMENT REQUESTED

NOW COMES Plaintiff REMBRANDT ENTERPRISES, INC. (“Rembrandt”), by and through its attorneys, and for its Motion in Limine to preclude the testimony at trial of Quentin Baker and Thomas Mander, both of Baker Engineering and Risk Consultants, Inc., pursuant to Federal Rule of Evidence 702, *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993) and its progeny.

Respectfully submitted,

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**PLAINTIFF’S BRIEF IN SUPPORT OF ITS *DAUBERT* MOTION
AS TO BAKER ENGINEERING AND RISK CONSULTANTS, INC.**

REMBRANDT ENTERPRISES, INC. (“Rembrandt”) hereby submits this Brief in Support of its *Daubert* Motion as to Quentin Baker and Thomas Mander of Baker Engineering and Risk Consultants, Inc. (“Motion”). For the reasons discussed in more detail below, this Court should enter an order *in limine* to preclude their testimony at trial pursuant to Federal Rule of Evidence 702, *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993), and its progeny.

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I. INTRODUCTION AND SUMMARY

This case involves the unforeseeable and catastrophic failure of a defective product that resulted in the loss of life, the killing of over 600,000 birds, and extensive damage to property, structures, equipment, and other commercial losses. As a result of the defective cage system's catastrophic failure, Rembrandt filed this negligence and product liability lawsuit against Tecno Poultry Equipment ("TPE") — the product's designer, manufacturer, and supplier — to recoup its losses caused by TPE's defective product.

TPE's responsibility was to supply the completed cage system to Rembrandt. Its duty as the contractual supplier did not end simply with delivering shipping containers with unassembled components to the Rembrandt site. Rather, the contract between Rembrandt and TPE called for the supply of the completed and installed cage system, explicitly requiring TPE to provide supervision of the assembly and installation.

II. BACKGROUND

A. Relationships Between the Parties

In 2006, Rembrandt agreed to purchase and TPE agreed to supply a complete, installed cage system for five (5) barns on property at Rembrandt Farms in Rembrandt, Iowa. (App. 0006). Pursuant to the parties' contract, TPE agreed to design, manufacture, and supervise the assembly/installation of the completed cage system it agreed to supply to Rembrandt. *Id.*

Neither Rembrandt nor TPE ever worked together before this purchase. (App. 0015 [¶¶10-15]). For good and practical reasons such as a language barrier, U.S. Immigration Law, and other logistical issues, a local contractor, Stanley & Sons, was delegated the task of assembling/installing the cage systems under the supervision of TPE. (App. 0022). Neither party had prior experience with Stanley & Sons. (App. 0016 [¶¶ 18-20]). Rembrandt agreed to hire a third-party assembler conditioned on the fact that TPE would be supervising the assembly. (App. 0029-0031). For these

reasons, the written contract by which TPE agreed to manufacture, design, and supervise the installation of the TPE product called upon TPE to provide supervision during the installation of the cage system to assure the assembly would follow the design intent provided by TPE in what is called the “Tecno Manual.” (App. 0006).

In order to fulfill its obligation to provide a completed cage system, TPE hired a technician, Andrzej Golebiewski, to be its on-site supervisor during the assembly and installation, who was to assure the installed system met with TPE’s design and assembly instructions contained in the Tecno Manual. (App. 0017-0018). Rembrandt paid TPE 24,000 Euros per barn as compensation for the supervision required by the contract. (App. 0019). Pursuant to the contract, supervision of installation of the caging systems was to be provided for 10 weeks per each of the five barns.

B. The Collapse, Resulting Damage, and Investigation into the Collapse

Early in the morning on February 14, 2020, the cage system in Barn 17 suddenly and violently collapsed resulting in significant property damage to the barn, damage to other property in the barn, the euthanizing of 600,000 egg-laying hens, the destruction of eggs, manure, feed, and the death of a farm worker who was crushed in the collapse. (App. 0034). Rembrandt lost substantial sales and incurred significant expenses during the time its business was interrupted because of the collapse.

In the aftermath of the collapse, the TPE cage system in Barn 17 had to be deconstructed and removed in order to repair the damage Barn 17 sustained. *Id.* Barns 15, 16, and 18 had to be retrofitted to rectify the defective caging systems in those barns. (App. 0035). That was accomplished by purchasing and installing thousands of self-tapping screws which had not been installed as part of the original assembly in any of the five barns.

Immediately following the collapse, Rembrandt retained structural engineer Tony Childress, P.E., to investigate the root cause of the collapse. As detailed in his declaration and

several reports, Childress observed several significant errors and omissions in the product supplied by TPE. (App. 0033-0316). Specifically, the drawings in the Tecno Manual called for the installation of a triangular-shaped brace, commonly referred to as a “knuckle bracket,” which provides structural stability against lateral loads (loads coming from the side of the structure). (App. 0034-0041). The braces were to be secured to the vertical and horizontal structural stanchions by metal screws, known as “self-tapping metal screws,” because they form holes in the metal as they are being screwed, creating a tight connection. *Id.*

Childress observed that none of the self-tapping screws in the top two locations on the knuckle brackets were installed. (App. 0034). Remarkably, thousands of the self-tapping screws were missing because they had never been installed. *Id.* On the upper tier of cages, the top two self-tapping metal screws provided critical lateral structural support for the cage system and the failure to install these screws was a major cause of the collapse. *Id.* **None** of the top screws were installed on the upper tier knuckle brackets. *Id.*

Childress also observed other defects and issues in TPE’s finished product. (App. 0041). The design drawings provided by TPE in the Tecno Manual are in conflict. *Id.* In one of the drawings, eight fasteners including the self-tapping metal screws are depicted securing the knuckle bracket to the horizontal and vertical members of the structure. (App. 0034-0040). Other drawings in the manual conflict with this depiction. *Id.*

Also, the rail splices for the feeders were frequently located mid-span along the feeder rails -- in many incidents joined in mid-span, that is, mid-point between two vertical supports -- rather than close to and supported by the vertical supports. *Id.* This introduced a vulnerability to the

structure which allowed for out-of-plane displacement as the feeder trolley moved along the rails.¹
Id.

In addition, the connection between the cage system and the exterior metal wall of Barn 17 is depicted in some, but not all, of the design drawings to be a slotted connection where the bolt is located in the middle of the slot which would allow for sliding movement in either direction due to extreme variations in temperature, movement of the exterior wall due to wind, and seismic influences. *Id.* Childress identified many instances where the installed bolts for the slotted connection were at one end or the other of the slot, which would frustrate the ability of the slotted connection to handle bi-directional movement from external lateral forces of expansion and contraction due to either wind or extremes of temperature. *Id.*

III. LEGAL STANDARD

Federal Rule of Evidence 702 governs the admissibility of expert testimony, and states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Rule 702 “embodies a trilogy of restrictions on expert testimony: qualification, reliability and fit.” *Schneider ex. Rel. Estate of Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003). In evaluating whether an expert opinion is admissible, the district court acts as a gatekeeper, excluding opinion testimony that does not meet these requirements. *Id.*; *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999). The burden is on the party offering the evidence to establish admissibility by a preponderance of the evidence. *Lauzon v. Senco Products, Inc.*, 270 F.3d 681, 686 8th Cir.

¹ The collapse occurred as the feeder trolley was in transit.

2001); *Klossner v. IADU Table Mound MHP, LLC, et al.*, 2021 WL 3439419, *3 (N.D.IA); *Microsource, LLC v. Eco World Group, LLC*, 587 F.Supp.3d 770, 808 (N.D.IA 2022).

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), the Supreme Court of the United States adopted Federal Rule of Evidence 702 as the standard for admissibility of scientific expert testimony in the federal courts. The *Daubert* court observed that, under the Federal Rules of Evidence, the trial court must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable (*Daubert*, at 589): “The subject of an expert’s testimony must be ‘scientific . . . knowledge.’ The adjective ‘scientific’ implies a grounding in the methods and procedures of science. Similarly, the word ‘knowledge’ connotes more than subjective belief or unsupported speculation. . . in order to qualify as ‘scientific knowledge,’ an inference or assertion must be derived by the scientific method . . . In short, the requirement that an expert’s testimony pertain to ‘scientific knowledge’ establishes a standard of evidentiary reliability.” (*Daubert*, at 589-590) When determining the reliability of an expert’s opinion, a court examines the following four non-exclusive *Daubert* factors: (1) whether the expert’s theory or technique “can be and has been tested”; (2) “whether the theory or technique has been subjected to peer review and publication”; (3) “the known or potential rate of error”; and (4) “general acceptance.” *Microsource*, supra, at 809.

In *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999), the Supreme Court of the United States clarified that the general holding of *Daubert* extends to testimony based on “technical” and “other specialized” knowledge in addition to “scientific” knowledge. Indeed, “it applies to all expert testimony.” (*Kumho*, at 147) The *Kumho* court noted that “the relevant reliability concerns may focus upon personal knowledge or experience” (*Kumho*, at 150). The court commented that when a witness’ expertise is based purely on experience, it may be

appropriate for the trial court to inquire whether the witness' preparation is of a kind that others in the field would recognize as acceptable. (*Kumho*, at 151) The importance of *Daubert*'s gatekeeping function "is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." (*Kumho*, at 152)

The admissibility of expert testimony may be litigated in advance of trial under Federal Rule of Evidence 104(a). Whether to admit the expert testimony rests in the discretion of the trial judge, whose decision will not be reversed unless clearly erroneous.

IV. ARGUMENT

It is within that framework that we focus on FRE 702's requirements as to qualification, fit and reliability and the four (non-exclusive) factors under *Daubert*:

A) Federal Rule of Evidence 702's Requirements

1) The Witness' Specialized Knowledge (Qualifications)

Where, as here, an expert witness relies solely or primarily on experience as the basis for his opinions, then the witness must explain how that experience leads to the conclusions reached, why that experience is a sufficient basis for an opinion, and how that experience is reliably applied to the facts. *U.S. v. Fredette*, 315 F.3d 1235, 1240 (10th Cir. 2003). Furthermore, the court must still determine if there are good grounds for the proffered opinion.

Baker Engineering and Risk Consultants' website states that the company is the result of the merger of Wilfred Baker Engineering ("WBE") and Energy & Chemical Risk Consultants, Inc. ("ECRC") in 2001. www.bakerrisk.com/about-bakerisk/history/ "WBE specialized in blast effects, response of structures to dynamic loading, and mitigation, prevention and investigation of catastrophic industrial explosion accidents." (*Id.*) ECRC "specialized in the fields of process safety management, risk identification, risk management, fire protection, and personnel safety." (*Id.*)

BakerRisk touts its large scale shock tube facility for assessing the blast response of structural members and a 2,000 acre jet fire and vapor cloud explosion test site. (*Id.*) Missing from the website is any mention of poultry or egg farms, animal husbandry, product design, or structural analysis of metal self-tapping screws.

Quentin Baker has testified in this litigation that:

- The majority of the matters investigated by BakerRisk are explosions, deflagrations, process upsets and toxic exposures and none of those were involved in this matter; (App. 0329, at 177,15)
- He has worked with defense counsel, Mark Aljets, on four prior investigations and they all involved some type of explosion or deflagration or runaway chemical processing event; (App. 319, at 7,3)
- The only two matters in which he testified in Iowa state or federal courts both involved explosions; (App. 319, at 8,7)
- In all of his prior testimonies, there was a fire or explosion or deflagration that occurred; (App. 320, at 10,10)
- He is currently involved in one matter involving structural collapse that did not involve a fire, explosion, or deflagration. It involved a failure of an overhead conveying system at a coal-fired power plant, but he can't discuss it as it is an ongoing matter. His personal role was "minor"; (App. 0321, at 17,8)
- It is absolutely apparent that this Rembrandt matter involves a structural issue (App. 0322, at 19,2), but it does not involve blast-resistant design; (App. 0330, at 179,9)
- Quentin Baker does not consider himself to be a structural engineer -- he is a mechanical engineer; (App. 0330, at 178,22)

- He has never before worked on a caging system collapse or a matter involving a poultry caging system or an egg farm; (App. 0329, at 177,21)
- No one at BakerRisk has been involved with a poultry caging system or an egg farm matter. (App. 0330, at 178,4)

Thomas Mander of BakerRisk has testified in this litigation that:

- He has never given a deposition before or testified in a court of law; (App. 0334, at 6,25)
- He is a structural engineer in the Protective Structures Group (“PSG”) at Baker Risk. (App. 0335, at 10,24) However, he is not a professional licensed engineer in the State of Iowa; (App. 0343, at 106,3)
- The PSG focuses on determining the strength and damage that could be of buildings’ infrastructure, equipment, a whole range of civil structural items for all different types of extreme loading. (App. 0335, at 10,12) By “extreme loading”, he is referring to things such as explosions, fires, fragments, impacts, settlement and anything that would be considered high-wind loads that would be outside of a typical design event. (App. 0335, at 10,18) The majority of the events would be impact or impulse loads; (App. 0335, at 11,4)
- A lot of his work involves the blast resistance of bridges; (App. 0335, at 11,8)
- He first became involved in the project at the beginning of 2022. (App. 0335, at 12,16)

The BakerRisk company has engineering expertise – as to blast effects, explosion mitigation and process safety design -- but not in a field relevant to this structural collapse loss. Neither Mr. Baker nor Mr. Mander have previously worked on any matter involving structural

collapse of a caging system, any matter involving the mechanical properties of helically threaded fastening systems, the structural support provided by those devices, or any matter involving poultry husbandry or egg ranching. Neither Mr. Baker nor Mr. Mander are professional engineers licensed by the State of Iowa.

While Mr. Baker and Mr. Mander may be experts in their historical field of explosions, deflagrations and blast effects, they have not “stayed in their lane” as to this matter and are not qualified to testify as to the cause of the Rembrandt structural collapse. (See, *Gregg v. Indian Motorcycle Corp.*, 2006 WL 2644937 (N.D.IA 9/13/06) where metallurgical engineer Engel was barred from testifying to causation of a motorcycle accident not connected to metallurgical engineering issues.) It is not inappropriate to bar opinion testimony where the witness simply references his experience without tying his opinions to his experience in a meaningful way and fails to provide any meaningful explanation as to how his experience assisted him in reaching his conclusions. *Ho v. Michelin North America, Inc.*, 520 Fed. Appx. 658, 664 (10th Cir. 2013).

2) *The Testimony Is Based on Sufficient Facts or Data* (Fit)

Quentin Baker has testified in this litigation that:

He did not visit the collapse site until nearly two years after the loss and after Barn 17 and its collapsed caging system had been removed, discarded and replaced; (App. 0323, at 31,12)

He has not looked at the contracts to purchase the caging systems installed at Rembrandt; (App. 0330, at 180,13)

He read in a deposition that Rembrandt paid Tecno for 10 weeks of supervision of installation, but he didn’t realize it was 10 weeks per barn; (App. 0330, at 180,17)

He has not looked into the issue of installation supervision whatsoever in this case; (App. 0330, at 180,8)

The only deposition transcripts he has reviewed were for the five depositions that were taken in Italy. (App. 0330, at 181,10)

Mr. Mander first became involved with this matter in early 2022. (App.0335, at 12,16) At that time, he spent just a few hours reviewing Luca Tesser's 2020 SAP2000 model of the caging system. (App. 0336, at 14,24) Mander did not understand all the loads in Tesser's model and he did not analyze data from the model. (App. 0336, at 15,18) He has never been to the loss site in Rembrandt, Iowa. (App. 0320, at 13,14) He did not collect any factual information about the collapse himself. Although his focus was on determining the height (and weight) of manure build-up that could have caused the collapse, he did not obtain information from others as to the height above the manure belt the manure had built up just prior to the collapse. (App. 0342, at 98,19)

BakerRisk's approach indicates an avoidance of the facts at the relevant time of collapse in favor of constructing a digital model which might plausibly indicate how the system might have collapsed, but there is truth to the computing maxim: "garbage in, garbage out."

3) *The Testimony Is The Product of Reliable Principles or Methods* (Reliability)

"Expectation bias is a well-established phenomenon that occurs in scientific analysis when investigator(s) reach a premature conclusion without having examined or considered all of the relevant data. Instead of collecting and examining all of the data in a logical and unbiased manner to reach a scientifically reliable conclusion, the investigator(s) uses the premature determination to dictate investigative processes, analyses, and, ultimately, conclusions, in a way that is not scientifically valid. The introduction of expectation bias into the investigation results in the use of only that data that supports this previously formed conclusion and often results in the misinterpretation and/or the discarding of data that does not support the original opinion.

Investigators are strongly cautioned to avoid expectation bias through proper use of the scientific method.” (NFPA 921, sec. 4.3.8)

Rather than perform an analysis to test the structural significance of not installing thousands of self-tapping screws in the upper tier of cages (the allegation against which Tecno is defending), BakerRisk chose to develop a seemingly plausible argument that the weight of manure buildup on the failed manure belts could have been the primary cause of the caging system collapse. Even though Mr. Baker knew that Mr. Childress believes that the missing upper two screws in the top corner of the knuckle brackets were the primary cause of the collapse, and Mr. Baker confirmed that 100% of the upper two screw holes in the upper tier knuckle brackets did not have screws (App. 327, at 166,17), he never asked Tecno what the purpose of those two screws were or whether they were needed in the assembly of the caging system. (App. 0328, at 170,17) BakerRisk never tested a full scale Tecno caging system. Rather, they built a cage model which was less than 1% the size of the caging system which had been in Barn 17. Even worse, the lower stanchions in their “exemplar” model were undersized by 16.67%.²

Mr. Mander did not peer review Mr. Baker’s calculations on the manure weight spreadsheet or the manure sample density spreadsheet. (App. 0339, at 88,18) He made a mathematical calculation of the horizontal force required rather than applying a physical horizontal force on a stanchion for reasons of expediency because the BakerRisk report was becoming due. (App. 0338, at 78,9) In his SAP2000 computer model, the majority of the knuckle bracket above the bolted connection to the upper stanchion was not modelled. (App. 0339, at 89,10) The SAP2000 showed longerons failing, but BakerRisk didn’t get longerons to fail during exemplar testing because BakerRisk “didn’t push it that far.” (App. 0340, at 68,18) The SAP2000 model showed failure of

² 1.5mm/1.8mm = 83.33%

a longeron at 22.5 psf, but BakerRisk only tested the exemplar system to a load of 15 psi. (App. 0340, at 92,16) Instead of testing the exemplar to failure, BakerRisk chose to disassemble and discard the majority of the exemplar caging system. (App 0341 2, at 94,2) Since the exemplar system was scrapped anyway, why wouldn't an investigator test it to failure if he were searching for the truth?

4) *The Expert Has Reliably Applied The Principles and Methods To The Facts of the Case*
(Reliability)

It is the obligation of a scientific investigator to conduct his/her investigation with a systematic approach based on the scientific method used in the physical sciences. (NFPA 921, sec. 4.2) The steps to be performed using the scientific method are set forth in NFPA 921, Fig. 4.3:

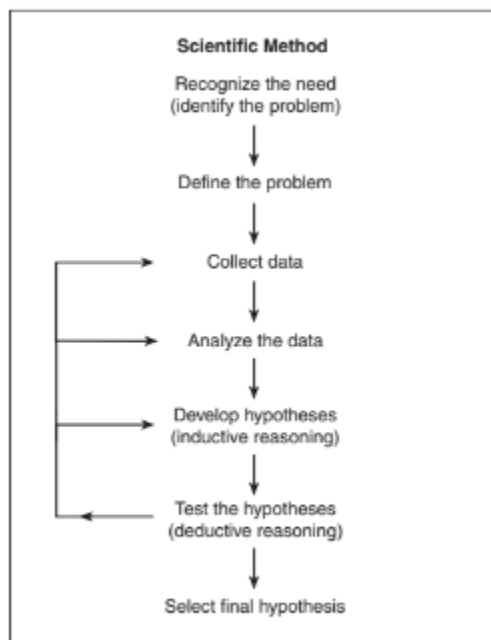


FIGURE 4.3 Use of the Scientific Method.

After the relevant facts are collected, the scientific method requires that all data collected be analyzed: "This is an essential step that must take place before the formation of the final hypothesis. The identification, gathering and cataloguing of data does not equate to data analysis. Analysis of the data is based on the knowledge, training, experience, and expertise of the individual

doing the analysis. If the investigator lacks expertise to properly attribute meaning to a piece of data, then assistance should be sought. Understanding the meaning of the data will enable the investigator to form hypotheses based on the evidence, rather than on speculation.” (NFPA 921, sec. 4.3.4)

As referenced above, Mr. Baker and Mr. Mander have little to no experience with farming or the agricultural sciences, but they did not seek outside assistance from someone with relevant expertise. In their analysis, they assumed that the average weight of the laying hens at Rembrandt were 1.8 kilograms which is the average weight for brown hens. All of the laying hens at Rembrandt were white hens which have an average weight of 1.3 kilograms. Although Mr. Baker was aware that brown hens weighed more than white hens and all of the hens Mr. Baker observed at Rembrandt were white (App. 0324, at 37,4), he used the higher brown hen weight and BakerRisk never performed an analysis based on an average bird weight of 1.3 kg. (App. 0325, at 38,23) BakerRisk’s input for the weight of the birds was 38.5% overstated. By using an overstated bird weight in its analysis, BakerRisk required less manure weight in order to overstress the caging system and theoretically initiate a collapse.

“Different hypotheses may be compatible with the same data. When using the scientific method, testing of hypotheses should be designed to disprove the hypothesis (falsification of the hypothesis). Confirmation bias occurs when the investigator instead tries to prove the hypothesis. This can result in the failure to consider alternate hypotheses, or prematurely discounting seemingly contradictory data without an appropriate assessment. A hypothesis can be said to be valid only when rigorous testing has failed to disprove the hypothesis.” (NFPA 921, sec. 4.3.9)

“Nothing in either Daubert or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to data only by the *ipse dixit* of the expert.” *General*

Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997). Every effort undertaken by Mr. Baker and Mr. Mander was an attempt to confirm Mr. Baker's hypothesis that the weight of chicken manure was, or could have been, the cause of the caging system collapse. Due to the discrepancies in their methodology and test setup materials, they were unable to obtain that confirmation. Still, they made no attempt to test or evaluate plaintiff's explanation as to the primary cause of the collapse³ which failure documents BakerRisk's confirmation bias rendering their analysis unscientific.

B) Daubert's Four (Non-Exclusive) Factors

1) Whether Theory Can Be And Has Been Tested

BakerRisk's theory that manure buildup caused the caging system collapse and its methodology have only been tested by BakerRisk in this litigation and the limitations and deficiencies of that testing have been discussed above. It is unlikely that any other investigators would properly test that theory as it would require a full-size exemplar caging system, assembled with properly sized structural members, loaded with chicken manure or substitute material with a height and density as existed at Rembrandt on February 14, 2020, which actually collapses after a sufficient period of cyclic loading on the system.

2) Whether Theory Has Been Subjected to Peer Review and Publication

BakerRisk's theory has not been subjected to independent peer review. BakerRisk's theory and conclusions have only been published in a written report prepared for internal use in this litigation.

3) The Known or Potential Rate of Error

³ As stated by Mr. Baker, he did not develop any new opinions to counter the rebuttal opinions of Mr. Childress. (App. 0328, at 171,10)

Due to the novelty of BakerRisk's approach, Plaintiff believes there is no known rate of error. The error rate of BakerRisk's opinions cannot be known because they are based on BakerRisk's expectation bias and confirmation bias rather than objective criteria. However, the fact that BakerRisk felt it necessary to ignore published and generally accepted information in the poultry industry as to the density of chicken manure is strongly suggestive of a very large potential rate of error as to BakerRisk's methodology. That suggestion is bolstered by the very large range of manure densities (30 – 100 pcf) which BakerRisk considered to be "plausible" for its analysis and Quentin Baker's conclusion that the density of the manure in Barn 17 at the time of collapse was 46 pcf **or greater**. Further known errors are the reduced dimensions of the lower stanchions used in BakerRisk's exemplar testing setup, its failure to include the knuckle brackets in its SAP2000 model, and the failure of BakerRisk to test its exemplar caging system to failure. Taken together, it is highly unlikely that any valid conclusion can be reached from BakerRisk's approach.

BakerRisk's initial assumption and ultimate conclusion is that the weight of manure caused the collapse and for the maximum volume of manure that could fit between manure belt crossbars after they deformed downwards for 2" and the bottom of the cage above, the manure would have to have a density of 46 pounds per cubic foot, **or greater**, in order to collapse the caging system in Barn 17. Despite that calculated density being more than twice published industry values for the density of chicken manure, BakerRisk provides no explanation for the discrepancy. In his deposition, Quentin Baker testified that:

He didn't have information that the hens in Barn 17 were larger or heavier than average laying hens with white feathers (App. 0326, at 118,2);

He didn't have information that the Barn 17 hens were fed more or given more water than other laying hens in the U.S. poultry industry (App. 0326, at 118,6);

He didn't know whether the hens in Barn 17 produced more eggs on average or larger eggs than average than other white laying hens in the U.S. (App. 0326, at 118,11).

Those responses beg the question: If the white laying hens in Barn 17 were of average size and weight (for white laying hens), produced a typical number and size of eggs (for white laying hens), and consumed typical amounts of feed and water (as other white laying hens), how did they develop the ability to produce manure with a density 2-3 times that of manure produced by other white laying hens? Where does the extra mass come from?

4) General Acceptance

Baker Risk's methodology in assessing the origin and cause of the Rembrandt collapse is not generally accepted for the following reasons:

- 1) BakerRisk initiated its investigation with an expectation bias that the weight of manure build-up on the manure belts was the cause of the collapse and the steps they undertook were designed to confirm that belief as at least a possibility;
- 2) BakerRisk did not follow the scientific method in conducting its investigation;
- 3) Due to confirmation bias, BakerRisk did not test Plaintiff's explanation of causation premised on the documented failure to install thousands of self-tapping screws at the upper corner of the knuckle brackets;
- 4) BakerRisk, despite erecting an exemplar caging system provided *gratis* by Tecno, did not test that exemplar system to failure and did not achieve physical failure or deformation of either crossbars or longerons;
- 5) Rather, BakerRisk dismantled and discarded most of the exemplar system preventing Plaintiff and its consultants from examining it for discrepancies and/or running their own tests on the exemplar;

- 6) BakerRisk's analysis has not been submitted for peer review and publication outside of this litigation;
- 7) BakerRisk generally ignored published industry guidelines as to the density of chicken manure and as to proper procedures for collecting chicken manure so that extracted data was not skewed.

C) Sanctions Are Appropriate for BakerRisk's Spoliation of Evidence

In considering a request for the imposition of sanctions, a court has "substantial leeway to determine intent through consideration of circumstantial evidence, witness credibility, motives of the witnesses ... and other factors." *Estate of Seaman ex rel. Seaman v. Hacker Hauling*, 840 F.Supp.2d 1106, 1115 (N.D.Iowa 2011). The ultimate focus is whether there was "intentional destruction of evidence indicating a desire to suppress the truth" and not simply that the parties were aware of the prospect of litigation. *Greyhound Lines, Inc. v. Wade*, 485 F.3d 1032, 1035 (8th Cir. 2007); *Merfeld v. Dometic Corp.*, 306 F.Supp.3d 1070, 1083 (N.D.Iowa 2018). If, the destruction of evidence occurs after litigation is imminent or has begun, no bad faith need be shown by the moving party. *Stevenson v. Union Pac. R.R. Co.*, 354 F.3d 739, 747-48 (8th Cir.2004)

Here, the litigation had been filed long before the exemplar testing was performed and BakerRisk was in a hurry to complete the testing in order to issue an expert report by the court deadline to do so. BakerRisk knew that its expert opinions relied in part on the results of the exemplar testing and was critical to Tecno's intended defense. BakerRisk's exemplar testing never resulted in failure of a longeron or stanchion and the system did not collapse. There was no necessity, therefore, for BakerRisk to dismantle and discard the exemplar caging system as BakerRisk did.

Neither Tecno nor BakerRisk advised Rembrandt of the exemplar caging system, the testing performed on it, or the intent to dismantle and discard it until after it had already been discarded. By discarding the exemplar, BakerRisk prevented Rembrandt and its consultants from inspecting it for other errors similar or dissimilar to the undersized lower stanchions, from visualizing how BakerRisk imposed loads on the exemplar, and from having the opportunity to perform its own tests on the exemplar – such as determining what loads would **actually** cause system failure and collapse.

D) The Physical Evidence from the Site does not Support but Contradicts the BakerRisk's Theory.

Childress Engineering Services, Inc. examined all of the crossbars and longerons available in Barns 15, 16, 17 and 18 (App. 0345-0349). The BakerRisk theory is simply that the weight of the manure on the manure belts bent the crossbars below, which in turn pulled the longerons inward, which initiated the collapse. There are no bent crossbars or longerons in any of the barns. The failure scenario theorized by BakerRisk simply and clearly did not happen.

V. CONCLUSION

For the foregoing reasons, Plaintiff Rembrandt respectfully requests that this Honorable Court enter an Order (1) preventing Defendant Tecno from making any use of or discussing the exemplar caging system before the jury as a spoliation sanction and/or (2) barring and excluding Quentin Baker and Thomas Mander of Baker Engineering and Risk Consulting, Inc. from testifying at trial.

Respectfully submitted,

REMBRANDT ENTERPRISES, INC.

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CERTIFICATE OF SERVICE

I hereby certify that on May 22, 2023, I electronically filed the foregoing document with the Clerk of Court using the CM/ECF system which sent notification of such filing to all parties of record.

By: /s/ Thomas Henderson

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